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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,162	08/10/2001	Mark A. Autry	INTL-0627-US (P12027)	7312

7590 03/16/2005

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EXAMINER

TRUJILLO, JAMES K

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/928,162

Applicant(s)

AUTRY, MARK A.

Examiner

James K. Trujillo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-31 is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-15, 18-24 and 27 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 16, 17, 25 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. The office acknowledges the receipt of the following and placed of record in the file:
Amendment Submitted/Entered with Filing of CPA/RCE dated 1/27/05.

2. Claims 1-31 are presented for examination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 9-14, 18-23 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi, U.S. Patent 5,964,873 in view of Firooz et al., U.S. Patent 6,237,091.

5. Regarding claim 10, Choi substantially teaches a computer system comprising:

- a. a firmware memory storing an existing basic input/output system image (to-be-updated ROM BIOS, col. 3, lines 43-53 and figure 4); and a processor (not shown but inherent for the basic input/output system image to be programmed) to:
- b. modify a replacement basic input/output system image (with new user information, 113 and 117) by replacing a portion of the replacement basic input/output system image (figures 1A, 1B and col. 3, lines 29-43); and
- c. write the modified replacement basic input/output system image to the firmware memory to replace (overwrite the old to-be-updated ROM BIOS image) the existing basic input/output system image (col. 3, lines 43-53).

Choi does not expressly disclose wherein the modification of the replacement basic input/output system image is *with a portion of the existing basic input/output system image* [emphasis added]. Specifically, Choi teaches using input from a user to modify the replacement basic input/output system to implement new user information.

Firooz teaches a system that modifies a replacement (firmware used for update) image with a portion (value from separate portion of memory containing information from the existing firmware) of an existing image (firmware to be updated, 318 figure 3 and col. 1, lines 21-27, col. 4, lines 30-34 and col. 4, line 65 through col. 5, line 9). Firooz teaches using firmware images. Basic input/output system images are a type of firmware. Thus, the system of Firooz is similar to that of Choi in that both systems are directed toward updating firmware images. Firooz uses old user data from an existing image while Choi uses new user data. Firooz teaches that when replacing an image in some instances, portions of the existing image need to remain unchanged to prevent inappropriate operation (col. 2 lines 32-48).

It would have been obvious to one of ordinary skill in the art at the time of the invention, having the teachings of Choi and Firooz before him at the time the invention was made, to modify updating of the BIOS disclosed by Choi to include modifying the replacement basic input/output system image with a portion of the existing basic input/output system image as taught by Firooz, in order to obtain desired previous portions of data such as configuration data. One of ordinary skill in the art would have been motivated to make this modification in order preserve a portion of an existing image that has desired previous data and to prevent inappropriate operation as taught by Firooz. Firooz teaches that the modification of the

replacement image is for firmware in general. Those of ordinary skill in the art will understand that teaching of Firooz would apply to any type of firmware including BIOS because BIOS is a type of firmware.

6. Regarding claim 11, Choi together with Firooz substantially taught the computer system according to claim 10 as described above. Choi together with Firooz further teach that the portion of the existing basic input/output system image comprises configuration data for the computer system (Choi – col. 2, lines 61-64 and Firooz – col. 2, lines 42-45). One of ordinary skill in the art would interpret user information to be configuration information.

7. Regarding claim 12, Choi together with Firooz substantially taught the computer system according to claim 11 as described above. Choi together with Firooz further teach wherein the configuration data comprises boot options (Choi – col. 2, lines 61-64 and Firooz – col. 2, lines 42-45). One of ordinary skill in the art would interpret user information and configuration information to be boot options for the computer system because in Choi the information is directed to ROM BIOS information. ROM BIOS information is used during booting.

8. Regarding claim 13, Choi together with Firooz substantially taught the computer system according to claim 10 as described above. Choi together with Firooz teach wherein the portion of the existing basic input/output system image corresponds to a region of firmware memory locked from writes. Choi is directed toward ROM Bios (col. 1, lines 13-18) and Firooz is directed toward firmware in ROM (col. 1, lines 13-23). Both Bios and firmware in a ROM would normally be write-protected mode except when being updated, as is well known in the art.

9. Regarding claim 14, Choi together with Firooz substantially taught the computer system according to claim 10 as described above. Choi discloses a system memory where in the

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processor stores the replacement basic input/output system image in the system memory (new ROM BIOS image data is loaded into the system memory, col. 3, lines 14-17).

10. Regarding claim 18, Choi together with Firooz substantially taught the computer system according to claim 10 as described above. Choi teaches wherein the firmware memory comprises FLASH memory (col. 1, lines 21-47).

11. Regarding claims 1-5, 9, 19-23 and 27, Choi together with Firooz taught the claimed computer system therefore together they also teach the claimed method and the claimed instructions stored on a computer readable medium.

12. Claims 6, 15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi and Firooz in further view of Krau et al., U.S. 5,864,698.

13. Regarding claim 15, Choi together with Firooz substantially taught the computer system according to claim 10 as described above. Choi together with Firooz do not expressly disclose wherein the processor compares the portion of the existing basic input/output system image with the portion of the replacement basic input/output system image to check for compatibility between the existing and replacement basic input/output system images.

Krau teaches a processor that compares a portion of an existing basic input/output system image with the portion of the replacement basic input/output system image to check for compatibility between the existing and replacement basic input/output system images (col. 2, line 60-66). The feature of checking for compatibility between existing and replacement basic input/output system images in Krau would provide the advantage of increase reliability and

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functionality. That is, if they are not compatible the replacement image may not work in the system. Therefore, by checking for compatibility system failures can be avoided.

It would have been obvious to one of ordinary skill in the art, having the teachings of Choi, Firooz, and Krau before them at the time the invention was made, to modify Choi to include comparing a portion of an existing basic input/output system image with a portion of the replacement basic input/output system image to check for compatibility between the images.

One of ordinary skill in the art would have been motivated to make the modification in order to increase the reliability and functionality of the system.

Allowable Subject Matter

14. Claims 7-8, 16-17, 25-26 and 28-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach or suggest in combination comparing the size or location of a portion of the first basic input/output system image with the size or portion, respectively, of the second basic input/output system image. The prior art of record also does not teach or suggest in combination determining at least one of the size and the location of the configuration data section; and based on the determination, modifying the first basic input/output system image.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James K. Trujillo whose telephone number is (571) 272-3677. The examiner can normally be reached on M-F (7:30 am - 5:00 pm) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



James K. Trujillo
Patent Examiner
Technology Center 2100